

CABLE FREE WEATHER STATION

MODEL: WMR112A

USER'S MANUAL

SECTION 1 INTRODUCTION

Congratulations on your purchasing the WMR112A Cable Free Weather Station. An all-purpose easy-to-use system, the WMR112A lets you monitor the following weather elements:

- Air temperature
- Relative humidity
- Barometric pressure

The WMR112A is also equipped with:

- RF calendar clock with daily alarm
- Weather forecast within 32 to 48 km (20- to 30-mile) radius
- Weather alarms
- Memory for maximum and minimum readings
- Touch-screen plus key button operation

PACKAGE

The original WMR112A includes the following:

- Main unit (WMR112A)
- Baro-thermo-hygrometer (BTHR968)
- Thermo-hygrometer (THGR268)
- 12V AC adapter

The WMR112A can support up to seven different remote instruments. You can connect up to three optional thermo or thermo-hygro sensors to the system.

Optional items include:

- Anemometer (WGR968)
- Rain gauge (RGR968)
- Thermo sensor (THR238/THC268)
- Outdoor Thermo-hygrometer (THGR968)

Contact an authorized dealer for optional items.

SECTION 2 INSTALLATION

The WMR112A operates at 433MHz. No wire installation is required among units.

The WMR112A has an effective range of 300 feet in an open area. Position the units within the range and be sure the transmission path is clear of interference and obstacles.

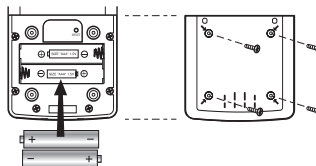
Note: The thermo-hygrometer should be installed outdoors and in locations that best measure the weather elements which the instruments are designed for. As for the baro-thermo-hygrometer, it must be installed indoors. If you have any optional thermo or thermo-hygro sensors, they can be installed outdoors or indoors.

THE THERMO-HYGROMETER

The thermo-hygrometer measures outdoor temperature and humidity. It uses two (2) UM-3 or "AA" size batteries.

Follow these steps to install / replace batteries:

1. Remove the screws on the battery compartment.



2. Assign a channel to the sensor by changing the channel switch in the battery compartment of the remote sensor.
3. Select the unit of measurement for the temperature display on the degrees C and degrees F slide switch
4. Insert the batteries strictly according to the polarities shown therein.
5. Press the [RESET] button.
6. Replace the battery compartment door and secure its screws.

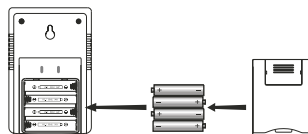
THE BARO-THERMO-HYGROMETER

The baro-thermo-hygrometer measures the atmospheric pressure, temperature and humidity.

The sensor uses four UM4 or "AAA"-sized batteries.

To install it,

1. Insert alkaline batteries accordingly.



2. Mount the unit where you want to monitor the readings. Or you can make use of its table stand to place it on a flat surface.



THE MAIN UNIT

The main unit gives you all the readings and controls. It should be placed indoors.

The main unit is powered up by the 12V AC adapter.

To install it,

1. Position the main unit and other units within effective range (300 feet).
2. Insert four UM4 or "AAA"-sized alkaline batteries for backup purpose.

THE RF CALENDAR CLOCK

The calendar clock is radio-controlled. It automatically synchronizes its current time and date when it is brought within range of the radio signal generated from U.S. Atomic Clock.

You can also set the calendar clock manually.

To do so,

1. Press the RF calendar clock and alarm window.
2. Press and hold [▼] to disable the radio reception function.
3. Press and hold [SET] till the digit flash.
4. Use [▲] and [▼] to change to the desired setting.
5. Press [SET] for the next item setting.
6. Repeat from Step 4 to finish all the settings for:
 - Clock display formats (12hr or 24hr)
 - Display language of the day-of-the-week
 - Clock
 - Calendar display formats (Month-Day, Day-Month)
 - Calendar

For the display language, you can choose:

- English (E)
 - German (D)
 - French (F)
 - Italian (I)
 - Spanish (S)
7. Press [SET] to confirm.

The calendar clock and alarm window has three displays: clock with seconds, clock with day-of-the-week and calendar. To change from one display to another, press the window once.

THE DAILY ALARM

To set the daily alarm,

1. Press the RF calendar clock and alarm window.
2. Press [ALARM] and the (••) indicator will be display to indicate that you are in the alarm mode.
3. Press and hold [SET] till the hour digit flash.
4. Use [▲] and [▼] to change to the desired setting.
5. Press [SET] for minutes setting.
6. Use [▲] and [▼] to change to the desired setting.
7. Press [SET] to confirm.

Note: the window will show “- -: -” if no alarm is armed.

Once set, the alarm clock will be activated automatically and the alarm indicator 🕒 will light up. When an alarm goes off indicator will flash and a beep sound will be activated for 1 minute. Press any button to stop it. The alarm is still active and will go off again the next day.

To deactivate the function,

1. Press the RF calendar clock and alarm window.
2. Press [🕒]. The alarm indicator 🕒 will disappear.

ABOUT RADIO CONTROLLED CLOCK RECEPTION

Whenever the WMR112A is brought within range of the radio signal with its radio reception function activated, it will search for the clock signal at a predefined time on each day while the manual calendar clock settings will be overridden.

When the unit is new and just out of the box, synchronization with the U.S. atomic clock can take up to 72 hours. The unit will receive the most dependable and interference free signal automatically between Midnight and 4 AM.

While receiving the signal the radio reception indicator will blink. A complete reception generally takes 2 to 10 minutes, depending on the strength of the radio signal.

The indicator will stop blinking when the reception is complete. The status of reception will be shown:

For best signal reception, place the unit away from other equipment that emit RF or microwave signals such as TV's, radios, PC's or microwave ovens. Other causes for signal interference include electrical power transmission towers, steel reinforced concrete construction, and/or metal siding.

After receiving the initial signal, updates are accomplished with great ease. Even though there are areas that may have more difficulty in receiving a signal, the RF clock contains very accurate quartz movement and will retain precise time even if a signal is missed on a rare occasion.

To disable the radio reception function:

1. Press the RF calendar clock and alarm window.
2. Press and hold [▼] to disable the function. The radio reception indicator will disappear.

To enable the function again,

1. Press the RF calendar clock and alarm window.
2. Press and hold [▲] to enable the function. The radio reception indicator will blink.

The status of reception will be shown

	- Strong
	- Weak
	- No signal
	- Receiving

WEATHER FORECAST

The weather forecast is displayed in the weather forecast and barometric reading window.

There are four readings for the forecast: sunny, slightly cloudy, cloudy and rainy.

Indicator displays on the unit				
Forecast	Sunny	Slightly Cloudy	Cloudy	Rainy

INDOOR BAROMETRIC READING

The atmospheric pressure reading is displayed in the weather forecast and barometric reading window.

The pressure reading can be displayed in mb (millibars), hPa (Hecto-Pascal), inHg (inch mercury) or mmHg (millimeter mercury).

To select the display unit,

1. Press the weather forecast and barometric reading window.
2. Press [UNIT] repeatedly for the desired setting.

The pressure history for the past 24 hours is displayed in a six-column bar chart.

To display the pressure reading for a particular hour within the past 24 hours,

1. Press the weather forecast and barometric reading window.
2. Press [▲] and [▼] for the desired hour.

To set the sea-level pressure,

1. Press the weather forecast and barometric reading window repeatedly till the "sea-level" icon is displayed.
2. Press [▲] and [▼] for the current (0 Hr) pressure.
3. Press and hold [SET].
4. Press [▲] and [▼] to change to the desired setting.
5. Press [SET] to confirm.

INDOOR AND DEW POINT TEMPERATURES

The current indoor and dew point temperatures, taken by the indoor baro-thermo-hygrometer, are displayed on the indoor temperature window. They can be displayed in degree Centigrade (°C) or Fahrenheit (°F).

To select the display unit,

1. Press the indoor temperature window.
2. Press [UNIT] repeatedly for the desired setting. The selected unit will apply to all temperature displays in this window.

Note: The unit of all temperature related display will be changed simultaneously.

To display the dew point temperature, press the indoor temperature window until the "DEW" indicator is displayed.

To display the maximum and minimum temperatures,

1. Press the indoor temperature window.
2. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

The display will automatically return to the current temperature or dew temperature whatever is displayed before if no key is pressed for about one minute.

To clear the memory,

1. Press the indoor temperature window.
2. Press and hold [MEMORY] till a key tone is heard.
3. Press [MEMORY] to check if the memory is clear.

To display the dew point maximum and minimum temperatures,

1. Press the indoor temperature window or repeatedly until "DEW" icon appear.

2. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

The display will automatically return to the current temperature or dew temperature whatever is displayed before if no key is pressed for about one minute.

To clear the dew point memory,

1. Press the indoor temperature window or repeatedly until "DEW" icon appear.
2. Press and hold [MEMORY] till a key tone is heard.
3. Press [MEMORY] to check if the memory is clear.

INDOOR HUMIDITY

The current indoor relative humidity, taken by the indoor baro-thermo-hygrometer, is displayed on the indoor hygrometer window.

To display the maximum, minimum and current humidity,

1. Press the indoor humidity window.
2. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

To clear the memory,

1. Press the indoor humidity window.
2. Press and hold [MEMORY] till another key tone is heard.
3. Press [MEMORY] to check the memory is clear.

OUTDOOR AND CHANNEL TEMPERATURES

The temperature readings taken by the outdoor thermo-hygrometer and separate thermo-hygro sensors are displayed on the outdoor and channel temperature window.

As this window can display up to four different sets of data, specify the instrument or channel you want to read.

Note: The outdoor thermo-hygrometer THGR968 is not included in this package. In this case, "---" will be displayed when [CHANNEL] is pressed and to display readings from the THGR268 or any other remote sensor choose from the appropriate channel 1, 2 or 3

when outdoor temperature is selected.

To do so,

1. Press the outdoor/channel temperature window.
2. Press [CHANNEL] to go from the outdoor reading taken by the outdoor thermo-hygrometer to those taken by individual sensors i.e. the THGR268- (Channel 1, 2 or 3).

The outdoor thermo-hygrometer is also capable of detecting the dew point temperature as well as the wind chill reading. To display such information, press the outdoor/channel temperature window repeatedly.

The temperatures can be displayed in degree Centigrade (°C) or Fahrenheit (°F).

To select the display unit,

1. Press the outdoor/channel temperature window.
2. Press [UNIT] repeatedly for the desired setting. The selected unit will apply to all temperature displays in this window.

Note: The unit of all temperature related display will be changed simultaneously.

To display the maximum and minimum temperatures,

1. Press the outdoor/channel temperature window.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.
3. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

To display the dew point temperature for a channel, press the window again when the channel temperature is located.

To clear the memory,

1. Press the outdoor/channel temperature window.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.
3. Press and hold [MEMORY] till a key tone is heard.
4. Press [MEMORY] to check if the memory is clear.

To display the dew point maximum and minimum temperatures,

1. Press the outdoor/channel temperature window repeatedly until "DEW" icon appear.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.

3. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

To display the dew point temperature for a channel, press the window again when the channel temperature is located.

To clear the dew point memory,

1. Press the outdoor/channel temperature window repeatedly until "DEW" icon appear.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.
3. Press and hold [MEMORY] till a key tone is heard.
4. Press [MEMORY] to check if the memory is clear.

OUTDOOR AND CHANNEL HUMIDITY

The relative humidity readings taken by the outdoor thermo-hygrometer and separate thermo-hygro sensors are displayed on the outdoor/channel humidity window.

As this window can display up to four different sets of data, specify the instrument or channel you want to read.

To do so,

1. Press the outdoor/channel humidity window.
2. Press [CHANNEL] to go from the outdoor reading taken by the thermo-hygrometer to those taken by individual sensors (Channel 1, 2 or 3).

To display the maximum, minimum and current humidity,

1. Press the outdoor/channel humidity window.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.

3. Press [MEMORY] repeatedly for the desired record. The time and date of the record will also be displayed alternatively with "STAMP" icon in the clock window.

To clear the memory,

1. Press the outdoor/channel humidity window.
2. Press [CHANNEL] for the outdoor thermo-hygrometer or the desired channel.
3. Press and hold [MEMORY] till a key tone is heard.
4. Press [MEMORY] to check if the memory is clear.

AUTO SCANNING FUNCTION

The auto scanning function is available for the outdoor/channel window for both the temperature and humidity.

To use it,

1. Press the outdoor/channel temperature or humidity window.
2. Press and hold [▲] until another key tone is heard. The main unit will start scanning from the active temperature and humidity display. Each channel will be displayed for about 4 seconds.

To exit the auto scanning routine, press any window or control button.

WEATHER ALARMS

Weather alarms are used to alert you to certain weather conditions. Once activated, the alarm will go off when a certain set of criterion is met.

You can set alarms for:

- Indoor, outdoor and channel high temperatures
- Indoor, outdoor and channel low temperatures
- Indoor, outdoor and channel dew point approaching
- Indoor, outdoor and channel high humidity
- Indoor, outdoor and channel low humidity
- High rainfall rate "This feature works only with the optional item: Rain gauge (RGR968)"
- Pressure drop
- High gust wind "This feature works only with the optional item: Anemometer (WGR968)"
- Low wind chill "This feature works only with the optional item: Anemometer (WGR968)"

To set a weather alarm,

1. Press the window containing the weather element you want to set.
2. Press [ALARM]. The current alarm setting will be displayed.
3. Press and hold [SET].
4. Press [▲] and [▼] for the desired setting.
5. Press [SET].


For temperatures and humidity, the high and low alarms can be set in sequence. After entering the value for one alarm, you will be prompted to enter the value for the other.


A weather alarm is activated once set. When the set criteria are met, an alarm will go off and the current reading will flash together with the corresponding indicator.

If that happens in the outdoor/channel temperature or humidity window, the “OUT” indicator will flash to show that the criteria set for the outdoor thermo-hygrometer have been met. If it is one of the separate sensors, the [CHANNEL] indicator will flash. Press the window repeatedly to locate the channel in question.

When a weather alarm goes off, press any button to stop the alarm. The alarm is still active until you deactivate the function or the criteria are no longer met.

To do so,

1. Press the window containing the weather element you want to set.
2. Press [ALARM].
3. Press [] to deactivate the function.

To turn on the function again, simply follow the same procedure and press [].

DISCONNECTED SIGNALS

If without obvious reason the display for the main unit goes blank or “- - -” are displayed, press and hold [CHANNEL] to enforce an immediate search.

If that fails, check:

- All weather instruments are still in place.
- The batteries of the main unit and individual weather instruments are still good. Replace them if necessary. Press and hold [CHANNEL] to enforce an immediate search afterwards.
- The transmission is within range and path is cleared of obstacles and interference. Shorten the distance if necessary.

Then press and hold [CHANNEL] again. The main unit will start searching for all previously locked weather instruments.

If you want to add an new sensor, press the reset button on the new sensor and then press [CHANNEL] to enforce the main unit to search.

- Note:**
1. Do not reset the sensors after the main unit has locked those sensors, otherwise the main unit will no longer receive the signal from those sensors.
 2. If you have disconnected signals, you cannot clear the memory.

THE RESET BUTTON

This button is only used when the system is operating in an unfavorable way or malfunctioning. Use a blunt stylus to hold down the button. The main unit will return to all default settings and start searching for signals again.

Before resetting the main unit, you should do the same for all weather instruments to ensure correct transmission and reception of signals. Then press [RESET] on the main unit.

MAINTENANCE

When handled properly, this unit is engineered to give you years of satisfactory service. Here are a few product care instructions:

1. Do not immerse the unit in water. If the unit comes in contact with water, dry it immediately with a soft lint-free cloth.
2. Do not clean the unit with abrasive or corrosive materials. Abrasive cleaning agents may scratch the plastic parts and corrode the electronic circuit.

3. Do not subject the unit to excessive: force, shock, dust, temperature, or humidity. Such treatment may result in malfunction, a shorter electronic life span, damaged batteries, or distorted parts.
4. Do not tamper with the unit’s internal components. Doing so will terminate the unit’s warranty and may cause damage. The unit contains no user-serviceable parts.
5. Only use new batteries as specified in this instruction manual. Do not mix new and old batteries as the old batteries may leak.
6. Read this instruction manual thoroughly before operating the unit.

SPECIFICATIONS

Temperature

Proposed Operating Range :	Indoor -5°C to 50°C (23°F to 122°F)
	: Outdoor -20°C to 60°C (-4°F to 140°F)
Resolution (indoor and outdoor)	: 0.1°C (0.2°F)

Relative Humidity

Measuring Range (indoor and outdoor)	: 25 to 90% RH
Resolution (indoor and outdoor)	: 1% RH

Dew Point Temperature

Measuring Range	: Indoor -5°C to 50°C (23°F to 122°F)
	: Outdoor -10°C to 60°C (14°F to 140°F)
Resolution (indoor and outdoor)	: 1°C (2°F)

Barometric Pressure /Trend

Measuring Range	: 600 to 1050 mb (17.72 to 31.01 inHg)
Resolution	: 1 mb (0.03 inHg)
Barometric Pressure	
Accuracy	: +/-7 mb/hPa(+/-0.21 in Hg)

WMR112A-Main Unit :

Weight	: 17.81 ounces(505 g)
Dimension	: 36 (L) x 90 (W) x 21 (H) mm (1.42x3.54x7.72 inches)
Power	: 12V AC / DV adapter
Power backup	: 4 x UM4 - “AAA” size alkaline battery

THGR268N:

Weight	: 2.84 ounces(80.5 g)
Dimension	: 105 (L) x 70 (W) x 21 (H) mm (4.13x2.76x.83 inches)
Power : Main	: 2 x UM3 - “AA” size alkaline battery

BTHR918N:

Weight	: 2.77 ounces(78.4 g)
Dimension	: 180 (L) x 70 (W) x 19 (H) mm (7.09x2.76x.75 inches)
Power	: 4 x UM4 - “AAA” size alkaline battery

NOTE ON COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operations.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving unit.
- ☐ Increase the separation between the equipment.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer of an experienced radio/TV technician for help.

Company Name : Oregon Scientific, Inc.

Address : 19861 SW 95th Place, Tualatin, Oregon 97062, USA

Telephone Number : (1)503-6398883

Name and model number of the product: Cable Free Weather Station WMR112A

CUSTOMER ASSISTANCE

Should you require assistance regarding this product and its operation, please contact our customer care department at 800-853-8883 or via email at helpme@oscientific.com.

WARRANTY

This product is warranted to be free of manufacturing defects for a period of 90 days from date of retail purchase. Defective product should be directed to the place of retail purchase for exchange.

Should this not be possible, contact our customer care department for assistance and a return material authorization. No returns may be made without a return authorization. Please retain your retail receipt as you may be asked to provide a copy of it for proof of date purchased.

This warranty does not cover product subjected to abuse, misuse, accidental damage or tampering.

CAUTION

- The content of this manual is subject to change without further notice.
- Due to printing limitation, the displays shown in this manual may differ from the actual display.
- The contents of this manual may not be reproduced without the permission of the manufacturer.